

LA FARGE MUNICIPAL UTILITIES

105 W. Main St. P.O. Box 39 La Farge, WI 54639

Telephone: (608)625-2333

Fax: (608)625-2800

E-Mail: lafutil@mwt.net



RECEIVED

Electric Division

January 1, 2003

Mr. Scot Cullen, Chief Electric Engineer Public Service Commission 610 N. Whitney Way P.O. Box 7854 Madison, WI 53707-7854

RE.

In the Matter of Filing Reporting Requirements for Appropriate Inspection and

Maintenance, PSC Rule 113.0607(6)

Dear Mr. Cullen:

Enclosed for filing are 3 copies of La Farge Municipal Utility's report to the commission, submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

Wayne J. Carpenter

Public Works Manager

Enclosures

TWO YEAR REPORT DOCUMENTING COMPLIANCE WITH THE PREVENTATIVE MAINTENANCE PLAN

La Farge Municipal Utilities

FILING DEADLINE FEBRUARY 1, 2003

January 1, 2003

Wayne J. Carpenter
105 W. Main St.
La Farge, WI 54639
(608)625-2333
lafutil@mwt.net

This report format was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

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Date 9-24.02 Inspected by Lotouze Sub ckt EAST, Rural 10

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INFRARED REPORT

LA FARGE ELECTRIC UTILITY

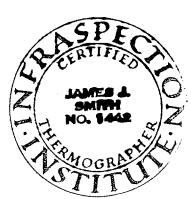
LA FARGE, WI

CONTACT: WAYNE CARPENTER

JOB NUMBER: 38479

TESTED BY: JIM SMITH

DATE: 07/10/01



ADVANCED ELECTRIC EQUIPMENT SERVICE INC. INFRARED REPORT

CUSTOMER: LA FARGE ELECTRIC UTILITY

LOCATION: LA FARGE, WI

DATE: 7/10/01

The equipment used in your Infrared Inspection was an I.S.I. VideoTherm 2000 color uncooled focal plane array infrared imagine system, Serial # 206.

Operation of the VideoTherm 2000 is based on the principle that all objects radiate quantities of infrared energy according to their temperature and emissivities. This imaging system converts the levels of infrared radiation to corresponding levels of visible light so a detailed television picture is displayed on the view screen and recorded on video tape. The thermal image is 320 x 240 pixels in the 8-14 micron view screen and recorded into the view is a full visible camera to provide a real time normal camcorder type image. A built in microphone is used for recording audio comments.

The VideoTherm 2000 also has an integrated non-contact thermometer, or pyrometer, which provides a graphic temperature display. The sighting circle is displayed on the screen. It is adjustable for emissivity and will indicate in Fahrenheit or Centigrade. Peak or Valley Hold can be used to record the maximum or minimum temperature in view.

Note: Determination of Action Code is based on the maximum temperature of the temperature difference from phase to phase, our estimation of the importance of the equipment, and on the degree of loading. This is only an opinion. You must make the final determination as to when repair or replacement takes place. Suggested time periods for repair are as follows:

ACTION CODE

SEVERITY

A - Extreme Risk

B - High Risk C - Medium Risk

D - Low Risk

FAILURE IMMINENT! REPAIR IMMEDIATELY!

As Soon As Possible Within Three Months

Within Three To Six Months

All inspections were performed with the electrical system in the "as found" condition. No attempt was made to verify the percentage of load on the system. If load increases, so will the heating.

Thank you for the opportunity to service your predictive maintenance needs. I'd be happy to answer any questions you may have after reviewing the following report. We also offer a re-scan at a reduced rate after problem areas are corrected to verify equipment is operating satisfactory.

Scanned by:

Jim Smith

Signed:

PHONE: (608) 781-2627

FAX: (608) 781-2628

2411 LARSON ST. LA CROSSE, WI 54603

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

EQUIPMENT LIST

CUSTOME	R LA FARGE ELECTRIC UTILITY	JOB# 38479	PAGE# 1
	DESCRIPTION	COMMENTS	
	CITY SUBSTATION		
1	CROP MAIN OFFICE - 8.2.01		
	TIRE SHOP 3 PHASE BANK		
	WEST CIRCUIT ALLEY POLE	- 0	
2	SAWMILL TRANSFORMER & CAPACITOR BANK	/_ 8-1-0 l	
	CROP RELOCATABLE TRANSFORMER BANK		
	RURAL STEP UP TRANSFORMER		
	RURAL VOLTAGE REGULATOR		
3	ELM STREET TRANSFORMER - 9-5-	Φ I	
4	WELL H2 BANK - 8-9-4	<i>, ,</i>	
	LIFT STATION		
	SEWAGE TREATMENT BANK		
	SOUTH STATE STRET TRANSFORMER		
	SOUTH SIDE ALLEY POLES (3)		
	MAPLE STREET POLE		
	POWER HOUSE		
	SUBDIVISION		

2411 LARSON ST. LA CROSSE WI. 54603

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 1

Job# 38479

Date 7/10/01

Page # 2

Equipment: CROP MAIN OFFICE TRANSFORMER BANK

Location: CROP MAIN OFFICE

Problem Area: WEST SECONDARY BUSHING ON EAST TRANSFORMER

Action Code (Effect on Plant) Extreme Risk High Risk

XX Medium Risk Low Risk

Probable Cause

Loose Connection

Overload

Check for Cause

Temperature:

В

C

Recommended Action

Clean & Tighten Repair/Replace Check for Cause

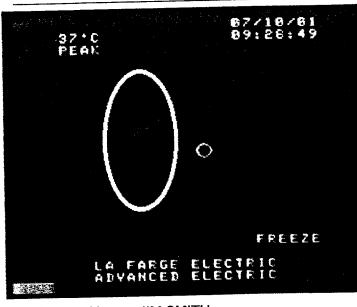
Comments: WEST 37 C

EAST 21 C

Follow Up Action: Clemed a TiGHTONED

Date: 8-2-01 Performed By:

WAYNE CARPENTER



JIM SMITH Scanned by:

Signed:

2411 LARSON ST. LA CROSSE WI.

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 2

Job# 38479

Date 7/10/01

Page # 3

Equipment: SAWMILL TRANSFORMER BANK PRIMARY FUSES

Location: SAWMILL

Problem Area: CENTER PHASE TOP FUSE / LUG CONNECTION

Action Code (Effect on Plant)

Fxtreme Risk High Risk XX Medium Risk Low Risk

XX Loose Connection Overload

Check for Cause

Probable Cause

Temperature:

C

Recommended Action

Comments: +5 C RISE.

CHECK ALL CONNECTIONS.

В

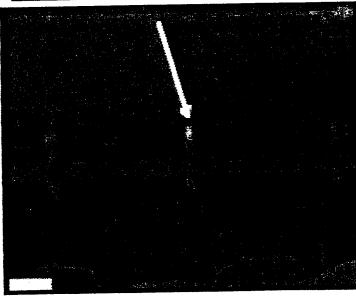
XX Clean & Tighten Repair/Replace Check for Cause

Follow Up Action: Cleaned a Tichrened

8-1-01 Date:

Performed By:

CARPENTER



Scanned by:

JIM SMITH

Signed:

2411 LARSON ST. LA CROSSE WI.

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 3

Job# 38479

Date 7/10/01

Page # 4

Equipment: ELM STREET TRANSFORMER

Location: ELM STREET

Problem Area: SOUTH SECONDARY BUSHING

Probable Cause

Action Code (Effect on Plant)

Extreme Risk XX High Risk Medium Risk Low Risk

XX Loose Connection

Overload

Check for Cause

Temperature:

В

C

Recommended Action

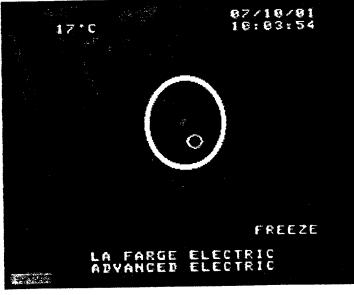
Clean & Tighten XX Repair/Replace Check for Cause

Comments: +20 C RISE.

CONDUCTOR IS CHARRED.

Follow Up Action: SPLIT up Landing with Addition of Another Transformer mid Black, decked connection on transformer in question, Tigationed Lug

Date: 9-5.01 Performed By: WAYNE DAN, Phil



Signed:

Scanned by:

JIM SMITH

2411 LARSON ST. LA CROSSE WI.

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 4

Job# 38479

Date 7/10/01

Page # 5

Probable Cause

Equipment: WELL #2 MAIN CIRCUIT BREAKER

Location: WELL #2

Problem Area: C PHASE LINE SIDE LUG

Action Code (Effect on Plant) XX Extreme Risk High Risk Medium Risk Low Risk

В

XX Loose Connection Overload Check for Cause

Temperature:

Δ

C

Recommended Action

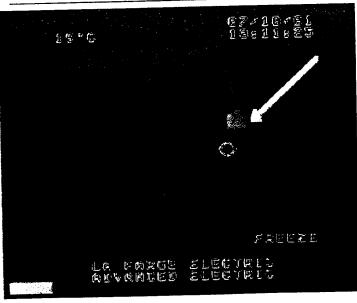
Clean & Tighten
XX Repair/Replace
Check for Cause

Comments: +20 C RISE.

RUN FOR SHORT TIME ONLY.

Follow Up Action: * New 2000 Amp breaken Installed

Date: 2-9 7 Performed By: WAYNE CASPENTER



Scanned by:

JIM SMITH

Signed:

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2411 LARSON ST. LA CROSSE WI.

MONTHLY S	UBSTATION INSPECTION	N FORM
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SUBSTATION: a Fags		
SUBSTATION. TA POTGE		
TRANSFORMER MAIN TANK	RATING: 0 1 2 3 4	(Circle One)
Tronci orangi ang		DATE CORRECTED
	COMMENTS	CORRECTED BY
inspected X		
Oil in Bushings		
Bushing and Arrestor		
Oil Leaks		
Main Tank		
Sample Valves		
Radiators		
Radiator Bank		
Tank Pressure		
Tank Oil Level		
Temperature Gauge		
Cooling Fans		
TRANSFORMER LTC or VOLTAGE REGULATORS	RATING: 0 1 2 3 4	(Circle One)
Tank Oil Level		
Drag Hand Positions		
Cabinet Light		
Operation Count		
Tank Pressure		
Cabinet Heater		
Cabinet Contamination		

MONTHLY SU INSPECTED BY: Ewined & Maintaine DATE: 110 N. MAIN STICE SUBSTATION:	بركم	b. 1/197	A 1 %	: 1		EC1	عينهز	N FORM	
HIGH VOLTAGE CIRCUIT BREAKER / CIRCUIT SWITCHER		RATING:	0	1	2	3	4	(Circle One)	
inspected)	x		COI	MEN	ITS			DATE CORRECTED	CORRECTED
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CHARGED/DISCHARGED Indicator	\perp								
Cabinet Light									
Cabinet Heater									
Operations Counter	_								
Bushings and Supports	\perp								· · · · · · · · · · · · · · · · · · ·
Line and Load Side Disconnect Switches									
Handles Grounded	4_								-
Emergency Trip Button	\perp								
Air Compressors - Air / Oil	1								
Air Pressure Gauge - Air / Oil	<u> </u>								
Spring Operated Mechanism	<u> </u>								
Oil Level Gauge	\perp								
Tank Oil Leaks									
Reset Switch	<u> </u>								
Cabinet Contamination	<u> </u>						***************************************		
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Gas Pressures for GCBs	$oxed{igspace}$						*		
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SUBSTATION: La Rary	_			
FEEDER CIRCUIT BREAKER / RECLOSER		RATING: 0 1 2 3 4	(Circle One)	
		COMMENTS	DATE	CORRECTED
inspected	X	COMMENT	CORRECTED	BY
OPEN/CLOSED Indicator				
CHARGED/DISCHARGED Indicator				
Cabinet Light				
Cabinet Heater				
Operations Counter				
Bushings and Supports				
Line and Load Side Disconnect Switches				
Emergency Trip Button				
Oil Level Gauge				
Tank Oil Leaks				
Reset Switch				
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MONTHLY	lir	CONTACTOR		
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SUBSTATION: La Faire				
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Bird Nests	-			
Transformer Bushings	\vdash			
Cable Terminators				
MANUAL SWITCHES		RATING: 0 1 2 3 4	(Circle One)	
Properly Labeled				
Ground Connections				
Positioning and Alignment				
Bushings and Supports				
MOTOR OPERATED SWITCHES		RATING: 0 1 2 3 4	(Circle One)	
DPEN/CLOSED Indicator	T			
Proper Labeling	\top			
Cabinet Heater				
Operations Counter				-
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livvarning SignS	Warning Signs									

X Substation - Annual Inspection Guide

- Check equipment for level
- Check condition of concrete pads
- Perform oil and DGA analysis
- Battery
 - ✓ Intercell strap resistance
 ✓ Individual cell voltages

 - ✓ Cell specific gravity
- Nameplate legible
- Equipment paint condition
- Proper equipment ID labels
- IR / RFI scans and checks

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	NANCE	Corrected By													
ļ	MAINTENANCE COMPLETED	Date Item Corrected													
Substation Linking	COMMENTS	Rating Criteria 0) Good Condition 1) Good Condition but aging 2) Non-critical Maintenance Required 3) Priority Maintenance Required 4) Urgent Maintenace Required													
CINS HELLE		IK / KFI scans and checks					-		 						
Ĭ	_	Proper identification labels						_							
3) RITERI	Equipment paint condition											-		_
437	JON C	Nameplate legible							n st	20.00					
Inspected by	SUBSTATION INSPECTION CRITERIA	Battery checks - Intercell strap resistance, Individual cell voltages, Cell specific gravity													
spect	BSTAT	Perform oil and DGA analysis													
빌	ns	Check condition of concrete pads						 <u> </u>				_			
		Check equipment for level						 _			-	-			
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XI TRANSMISSION – ANNUAL INSPECTION GUIDE

STRUCTURE

- Pole Condition
- Pole Leaning
- Crossarm Condition
- Insulators, Deadend, Pin
- Excess Fill or Soil Removal
- Pole Steps
- Grounds Intact
- Ground Molding
- Down Guys
- Guy Markers
- Guy Bonding/Insulator
- Signage Location Number, Warning Sign
- Customer Equipment
- Conductor
- Tie Wires

EQUIPMENT

- Switches GOAB, Disconnect
 - ✓ Insulator Condition
 - ✓ Operating Handle/Locks
 - ✓ Linkage
 - ✓ Grounding/Bonding
 - ✓ Switch Number
- Arrestor
 - ✓ Insulator Condition
 - ✓ Connections

CLEARANCES

- Ground Line
- Buildings, Bridges, Etc.
- Communications Facilities
- Fuel Tanks
- Other Electric Utilities
- Over Streets, Roads, Alleys, Highways
- Tree Trimming
 - ✓ Clearance From Line
 - ✓ Vines on Poles
 - ✓ Danger Trees

	Corrected																					
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COMMENTS	Rating Criteria 0) Good Condition 1) Good Condition 2) Non-critical Maintenance Required 3) Priority Maintenance Required 4) Urgent Maintenace Required																					
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Date_

ANNUAL TRANSMISSION INSPECTION FORM

XI TRANSMISSION - ANNUAL INSPECTION GUIDE (con't)

RFI CHECK

- Splices
- Connectors
- Dead Ends
- Switches
- Structures

XII TRANSMISSION - 5 YEAR INSPECTION GUIDE

IR SCAN

- Splices
- Connectors
- Dead Ends
- Switches